



AI2118 Portfolio Management and Real Estate Finance 7.5 credits

Portfolio Management and Real Estate Finance

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for AI2118 valid from Spring 2009

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Specific prerequisites

For students not registered on a KTH programme (180hp/300hp):

Bachelors degree in Finance or equivalent apart from completed upper secondary education incl documented proficiency in English.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

Upon completion of the course, students will be able to

- identify the characteristics of property investments and discuss how they compare to those of the other main investment classes;
- explain sector and geographical diversification opportunities in a real estate portfolio, including issues related to international real estate diversification;
- analyze opportunities and pitfalls of including real estate in a multi-asset portfolio;
- critically discuss if and how the CAPM, APT and multi-factor models can be applied to real estate;
- analyze capital market data using quantitative techniques to identify theoretically optimal portfolio strategies;
- apply and interpret econometric models used for analyzing real estate markets;
- identify and explain different types of real estate indices and discuss the pros and cons of different indices;
- identify and explain alternative real estate investment vehicles, in particular the emerging real estate derivatives markets
- analyze international real estate investments, including analysing currency risks
- describe and analyze financing alternatives for real estate investors and developers;

Additional objectives:

Develop students' business report writing and oral presentation skills through the course projects; enhance students' capacity to read published material in a critical fashion.

Course contents

Characteristics of real estate risk and return; Models of portfolio selection and pricing; Structuring the real estate portfolio through sector and geographical mix; International real estate investments; Real Estate's price of risk in the capital market; Performance measurements; Market modelling and forecasting; financing alternatives for real estate investments.

Course literature

- Geltner & Miller (2001), Commercial Real Estate Analysis and Investments and
- Hoesli & Macgregor (2000), Property Investments – Principles and Practice of Portfolio Management.

Recommended literature:

- Brueggeman & Fisher (2005), Real Estate Finance and Investments

- Brown & Matysiak (2000), Real Estate Investments – A Capital Market Approach

Examination

- INL2 - Exercises, 1.5 credits, grading scale: P, F
- TENA - Examination, 6.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Written examination (4,5 cr) and active participation in exercises (term paper; 3 cr).

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.